V. *The Difference in Time of the* Meridians *of diverse Places computed from Obſervations of the* Eclipſes *of* Jupiter's Satellites, *by the Reverend* Mr. Derham *Canon of* Windſor, *and F. R. S.*

SIR *Thomas Derham*, at *Florence*, having lately favoured me with his Tranſcript of Monſignior *Bianchini*'s Obſervations of the Eclipſes of *Jupiter*'s *Satellites*, from the Year 1721, I have laid them down ſo as to be ſeen at an eaſy View, for the Service of the *R. S.* Monſieur *Bianchini* ſaith, they were made with a Teleſcope of *Campani*'s grinding of 23 ½ *Roman* Palms: That Father *Jo. Bapt. Carboni* at *Lisbon* made uſe of ſuch another of the ſame Make, Length, and Goodneſs; and therefore thinks the Times aſſigned by them, to be exact; that he drew *Meridian-Lines* at *Aſſiſi in Ombria & Urbino*; at St. *Quirico* in *Tuſcany* and *Florence*: And that Monſignior *Euſtach. Manfredi* at the Obſervatory of *Bologna*, and he obſerved the Immerſion of the firſt *Satellite* on 25 *Auguſt* within two Seconds of one another; *Manfredi* with a Glaſs of 8 *Bononia* Feet, and he with one of 11; both made by *Campani*. With his own, *Bianchini* hath inſerted ſome Obſervations, made at the ſame time by Father *Carboni* at *Lisbon*, and Father *Grammatici* at *Ingolſtad*; Monſieur *Maraldi* at *Paris*, and Monſignior *Euſtachius Manfredi* at *Bologna*; as alſo an Immerſion obſerved by Mr. *Molyneux* near *London* (I ſuppoſe at *Kew*) with his reflecting Teleſcope, and two at *Pekin* in *China* by Father *Ignatius Kogler* a *Jeſuit*: But I ſuppoſe there is a Miſtake in the Obſervation of *November* 30, 1724, that it was an Emerſion, not an Immerſion; the Immerſions of the firſt *Satellite* being not to be ſeen then.

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Sir *Thomas* tells me that Signior *Bianchini* promiſeth his Obſervations of the circumjovial Eclipſes from the Year 1700, and that he will ſend the Society in *November* his new Globe of *Venus*.

As to the *Bologna* Obſervations, they were put into my Hands by Dr. *Rutty*, Secr. to the *R. S*; and are ſaid to be made with a Glaſs of *Campani*'s, of 11 *Bologna* Feet. And to ſave the Peruſor the Trouble, I have computed the Difference in Time between the Places in *Bianchini*'s and *Manfredi*'s Catalogues, and ſome Obſervations that I had of mine own.

Rome and *Liſbon*.		
H.	′	″
1	24	46
1	25	34
1	26	34
1	29	0
1	26	44
1	26	54
1	28	11

Rome and *Paris*.		
0	39	48
0	40	50
0	36	16
0	38	56
0	40	17

Rome and *Ingolſtad*.		
0	2	51
0	4	1

Rome and *Bologne*.		
0	3	45
0	2	16
0	4	45
0	4	14

Rome and *Kew*.		
H.	′	″
0	45	47

Rome and *Wanſted*.		
0	49	10

Rome and *Upminſter*.		
0	47	28

Rome and *Southwick* in *Northampton-ſhire*.		
0	47	58

Urbino and *Liſbon*.		
1	28	57

Paris and *Liſbon*.		
0	45	46
0	45	44

Paris and *Bologne*.		
0	34	30
0	34	0
0	38	32

Ingolſtad and *Liſbon*.		
H.	′	″
1	22	53
1	23	21

Ingolſtad and St. *Quirico*		
0	1	20
0	1	40

Ingolſtad and *Bologne*.		
0	1	53

Ingolſtad and *Paris*.		
0	36	23
0	36	00

Ingolſtad and *Upminſter*.		
0	46	10

St. *Quirico* and *Liſbon*.		
1	22	30

St. *Quirico* and *Paris*.		
0	37	40

St. *Quirico* and *Upminſter*.		
H.	′	″
0	47	50

Florence and *Liſbon*.		
1	19	43

Florence and *Bologne*.		
0	0	31

Florence and *Upminſter*.		
0	42	1

Upminſter and *Bologne*.		
0	43	43

Upminſter and *Liſbon*.		
0	37	42

Bologne and *Liſbon*.		
1	21	28

Bologne and *Albano*.		
0	3	43

Ob-

Obſervations of the Eclipſes of *Jupiter*'s *Satellites* made by Monſignior *Bianchini* at *Rome*, and other Places: With Accounts of ſuch as he received from other Places.

Days of the Month.	Time of Obſervation. H. ′ ″	Satel. Eclip.	Place where obſerved.
	Anno Domini 1721.		
Apr. 3	15 4 32	Im. 1	At *Rome.*
Jun. 21	8 46 0	Em. 1	*Rome.*
	Anno Domini 1722.		
Jun. 9	13 20 0	E. 1	*Rome.*
—— 18	9 36 30	E. 1	At *Albano.*
Jul. 11	9 49 10	E. 1	*Rome.*
—— 27	8 7 30	E. 1	*Rome.*
Aug. 19	8 26 20	E. 1	*Rome.*
	Anno Domini 1723.		
Mar. 26	17 14 50	I. 1	*Rome.*
Apr. 11	15 31 45	I. 1	*Rome.*
May 3	15 48 51	I. 1	*Rome.*
——	15 43 0		At *Ingolſtad* by F. *Grammattici.*
—— 27	18 56 0	I. 1	*Rome.*
Jun. 5	12 16 30	I. 1	*Rome.*
—— 12	14 11 39	I. 1	*Rome.*
Jul. 23	9 11 40	E. 1	*Rome.*
——	7 46 0		*Lisbon*, by Fa. *Carboni.*
—— 30	11 7 20	E. 1	*Rome.*
Aug. 8	7 32 0	E. 1	At *Ocricoli* in *viâ flaminiâ.*
—— 15	9 35 0	E. 1	At *Aſſiſi* in *Ombria.*
Sep. 7	9 50 45	E. 1	*Urbino.*
——	8 21 48		*Lisbon.*
—— 23	8 17 54	E. 1	At *Muceria* in *Ombria.*
Oct. 16	8 36 10	E. 1	At *Albano* in the *viâ appiâ.*

Days of the Month.	Time of Obſervation. H. ′ ″	Satel. Eclip.	Place where obſerved.
	Anno Domini 1724.		
Jun. 8	14 3 28		*Carboni* at *Lisbon.* I. 1
—— 15	15 56 27		
—— 23	13 42 50		*Rome.*
—— 30	15 34 29	I. 1	*Rome.*
	14 8 55		*Lisbon.*
Aug. 10	10 45 20	E. 1	*Rome*, but doubtful.
—— 17	12 40 45	E. 1	*Rome.*
—— 26	9 6 45	E. 1	*Rome.*
Sep. 11	7 30 53	E. 1	*Rome.*
—— 18	9 28 16	E. 1	*Rome.*
—— 25	11 25 55	E. 1	*Rome.*
	9 59 21		*Lisbon.*
Oct. 11	9 53 8	E. 1	*Albano.*
—— 14	9 31 0	E. 3	From the *Limb* of ♃
	11 7 0	I. 3	into ♃ Shadow. *Albano.*
	— 9 30		
—— 27	8 16 0	E. 1	*Albano.*
Nov. 12	5 33 10	E. 1	*Rome.*
—— 19	8 25 5	E. 1	*Rome.*
—— 30	6 14 0	I. 1	At *Pekin* in *China*, by F. *Kogler* the *Jeſuit.*
Dec. 5	6 42 25	E. 1	*Rome.*
	Anno Domini 1725.		
Jun. 19	15 17 10	I. 1	*Rome.*
July 5	13 32 20	I. 1	*Albano.*
—— 7	14 55 30	I. 1	*Pekin.*
—— 21	11 45 22	I. 1	*Rome.*
	10 89 35		Mr. *Molineux* near *London.*
—— 28	13 39 10		*Rome.*
	12 12 26	I. 1	*Lisbon.*

Day of the Month.		Time of Observation. H. ′ ″	Satel. Eclip.	Place where observed.
Nov.	15	9 53 50	E. 1	*Rome.*
		8 24 50		*Lisbon.*
——	24	6 15 15	E. 1	*Rome.*
Dec.	17	6 20 30	E. 1	*Rome.*
		Anno Domini 1726.		
Jul.	17	13 28 46	I. 1	*Rome.*
		13 24 45		*Ingolstad.*
		12 1 52		*Lisbon.*
Aug.	2	11 40 0	I. 1	St. *Quirco* in *Tuscany.*
		11 41 20		*Ingolstad.*
——	9	13 36 0	I. 1	*Siena* in *Tuscany.*
		12 13 30		*Lisbon.*
		15 28 29		*Florence.*
——	16	14 8 46	I. 1	*Lisbon.*
		15 29 0		*Bologne.*
		11 54 24		*Bian.* At
		11 54 26		*Man.* *Bol.*
Aug.	25	11 56 18	I. 1	*Ingolstad.*
		11 19 55		*Paris.*
		10 32 57		*Lisbon.*
		8 41 0		St. *Quirico.*
Sep.	26	8 39 20	I. 1	*Ingolstad.*
		8 3 20		*Paris.*
Oct.	1	16 7 45	I. 1	St. *Quirico.*
Nov.	20	7 46 30	E. 1	*Rome.*
		6 20 19		*Lisbon.*
——	27	9 39 25	E. 1	*Rome.*
		6 0 16		*Rome.*
Dec.	6	5 58 0	E. 1	*Bologne.*
		5 24 0		*Paris.*
		Anno Domini 1727.		
Mar.	8	6 42 50	E. 1	*Rome.*
		15 18 27	I. 1	*Rome.*
Aug.	5	15 0 8	I. 2	*Rome.*
		14 21 12		*Paris.*
		12 0 0		*Rome.*
Sep.	6	11 55 15	I. 1	*Bologne.*
		11 19 43		*Paris.*
Oct.	15	10 41 30	I. 1	*Albano.*
——	20	6 5 54	I. 1	*Albano.*
——	22	12 33 23	I. 1	*Albano.*

Day of the Month.		Time of Observation.	Satel. Eclip.	Place where observed.
		Anno Domini 1728.		
Jan.	15	13 13 46	E. 1	*Rome.*
Feb.	16	9 46 56	E. 1	*Rome.*
Mar.	26	8 32 7	E. 1	*Rome.*

Observations made at the Observatory of *Bologne*, by Monsignior *Eustachius-Manfredi.*

		Anno Domini 1726.		
Aug.	16	15 29 0	I. 1	Dubious.
——	25	11 54 24	I. 1	Dubious.
Nov.	27	9 35 11	E. 1	Dubious.
Dec.	4	11 27 45	E. 1	Dubious.
——	26	5 47 4	I. 3	Dubious.
——		7 56 23	——	The third be-
——		29 59 26	E. 1	gan to e- merge.
——	31	6 18 54	E. 2	Just begun.
		Anno Domini 1727		
Jan.	2	9 45 27	I. E. 3	Dubious.
		11 53 38		
——	5	7 51 54	E. 1	
——	7	8 54 12	E. 2	
Feb.	7	5 50 5	I. E. 3	Dubious.
		7 52 54		
——	8	8 37 59	E. 2	Air thick.
Aug.	21	13 34 39	I. 1	
Sep.	6	11 55 17	I. 1	
——	17	10 48 59	I. E. 3	
		12 40 30		
Oct.	13	16 5 45	I. 1	
——	22	12 29 42	I. 1	
——	23	8 55 34	E. 3	
——	30	11 1 9	I. 3	Dubious.
Nov.	5	9 5 15	I. 2	Dubious.
——	30	8 44 13	E. 2	
		Anno Domini 1728.		
Jan.	17	8 41 8	E. 3	
Feb.	16	9 43 11	E. 1	
——	29	6 40 45	I. E. 3	Dubious.
		8 50 40		